

## In the Claims

1(Previously Amended). A signal transmission amplifier circuit, comprising:

a transmission gate having an input coupled to an input signal;

a cross coupled latch coupled to an output of the transmission gate and having a signal output; and

a reference generating circuit coupled to the cross coupled latch through a second transmission gate.

2(Original). The circuit of claim 1, further including a strobe signal coupled to the transmission gate.

3(Original). The circuit of claim 2, wherein the strobe signal is coupled to the cross coupled latch.

4(Original). The circuit of claim 1, wherein the reference generating circuit includes a Schmitt trigger.

5(Original). The circuit of claim 4, wherein the reference generating circuit includes a latch coupled to the Schmitt trigger.

6(Previously Amended). The circuit of claim 5 wherein the second transmission gate is between the output of the latch and the cross coupled latch.

7(Original). The circuit of claim 1, wherein the input signal is a single ended input.

8(Original). The circuit of claim 1, wherein the input of the transmission gate is coupled to a transmission line.

9(Previously Amended). A signal transmission amplifier circuit, comprising:

a transmission gate having an input;

a latch coupled to an output of the transmission gate having a reference input;

and

a second transmission gate coupled to the reference input.

10(Original). The circuit of claim 9, wherein the latch is a cross coupled latch.

11(Original). The circuit of claim 9, wherein the transmission gate is coupled to a strobe signal and an inverted strobe signal.

12(Original). The circuit of claim 10, wherein the cross coupled latch latches on an input signal having a voltage that is less than a transistor threshold.

13(Original). The circuit of claim 12, wherein the cross coupled latch is coupled to a strobe signal.

14(Original). The circuit of claim 12, further including a reference circuit having a second latch generating the reference input signal.

15(Previously Amended). A signal transmission amplifier circuit, comprising:  
a cross coupled latch having an input;  
a reference voltage generating circuit coupled to the cross coupled latch; and  
a transmission gate coupling to the reference generating circuit to the cross coupled latch..

16(Original). The circuit of claim 15, wherein the cross coupled latch has a strobe signal input.

17(Original). The circuit of claim 15, further including a transmission gate coupled between the input of the cross coupled latch and an input signal.

18(Cancelled). The circuit of claim 15, further including a transmission gate between the reference voltage generating circuit and the cross coupled latch.

19(Original). The circuit of claim 18, wherein the reference generating circuit includes a latch.

20(Original). The circuit of claim 19, wherein an input signal is a single ended signal.